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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,015	03/29/2001	Sandip Sarkar	000388	8358
23696	7590	06/10/2005	EXAMINER	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			LY, ANH VU H	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding..

<b>Office Action Summary</b>	Application No. 09/823,015	Applicant(s) SARKAR ET AL.	
	Examiner Anh-Vu H. Ly	Art Unit 2667	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This communication is in response to applicant's amendment filed February 23, 2005.

Claims 1-13 are pending.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Vanghi (US Patent No. 6,711,150 B1).

With respect to claims 1 and 6, Vanghi discloses in Fig. 1, a schematic block diagram of a CDMA system for communicating bursts of data including the transmitter 24 (can be either considered as the base station or the mobile station) and receiver 12 (can be either considered as

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the base station or the mobile station). Herein, the system includes the transmitted and retransmitted mode for frames of data that not received correctly (Figs. 3A and 3B) (a processor operative to control transmission and retransmission of data). Further, it should be understood that the CDMA system, as illustrated in Fig. 1, includes a plurality of memories for storing data and instructions. Even though it is not shown in the figures (a memory storage device operative for storing a plurality of computer-readable instructions). Vanghi discloses in Fig. 3A that  $FER(1) = FER(0) * 6/2$ . Herein,  $FER(0)$  refers to transmission frame error rate while  $FER(1)$  refers to retransmission frame error rate (a first set of instructions for determining a transmission frame error rate and a retransmission frame error rate). Vanghi discloses (col. 6, lines 16-18) that once the target FER is computed, a target signal to noise (S/N) threshold or set point, in response to the FER may then be calculated. Herein, the target S/N (col. 4, lines 60-63) determines the long term FER, which is a direct measure of link quality and is a key parameter in assuring desired voice quality. Further, Vanghi discloses (col. 4, lines 42-49) that the base station compares the computed SNR to the target SNR referred to herein as the power control set point. The base station transmits power control commands to the mobile station that signal the mobile station to either increase or decrease its transmit power level (considered as transmission energy set point) based on the comparison, and the mobile station adjusts its transmit power accordingly. Herein, the transmission power of the mobile station (transmission energy set point) is determined according to the comparison and applied at the transmitter of the mobile station (a second set of instructions for determining a transmission energy set point as a function of transmission frame error rate and transmission quality). Vanghi discloses (col. 6, lines 55-61) that at the end of first transmission four frames have been received correctly, hence, the effective

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message length is two frames. Further, the FER associated with a message length of two frames is lower than the initial FER. As a result, the initial S/N threshold (retransmission energy set point) at the beginning of the second transmission,  $\eta_1(0)$  is considerably lower than the  $\eta_0(0)$  (a third set of instructions for determining a retransmission energy set point as a function of retransmission frame error rate and retransmission quality).

With respect to claim 2, Vanghi discloses (col. 7, lines 51-57) that the receiving station measures S/N of received message and compares the measured S/N to the target S/N determined by open loop. In response to comparison, the receiving station increases or decreases the inner loop set point, and transmits the power control bits to either raise or lower the transmit power level to obtain the target S/N (wherein the transmission quality is measured by a received error indication signal).

With respect to claim 3, Vanghi discloses in Fig. 3A, that the S/Ns or set points are set according to FERs (traffic to pilot ratios) (wherein the transmission energy set point and retransmission energy set point are determined as traffic to pilot ratios).

With respect to claims 4 and 7, Vanghi discloses in Fig. 3A, S/N threshold of the 2<sup>nd</sup> transmission relates to S/N of 1<sup>st</sup> transmission, retransmission FER, and retransmission quality (wherein third set of instructions determines the retransmission energy set point as a function of the retransmission frame error rate, retransmission quality, and transmission energy set point).

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With respect to claim 5, Vanghi discloses in Fig. 3A, that the S/N threshold of the 3<sup>rd</sup> frame of 2<sup>nd</sup> transmission is higher than S/N threshold of the 3<sup>rd</sup> frame of 1<sup>st</sup> transmission (third set of instructions determines the retransmission energy set point by adding a delta value to the transmission energy set point).

With respect to claim 8, Vanghi discloses in Fig. 3A, that the S/N threshold of the 3<sup>rd</sup> frame of 2<sup>nd</sup> transmission (retransmission energy set point) is higher than S/N threshold of the 3<sup>rd</sup> frame of 1<sup>st</sup> transmission (adjusting the retransmission energy set point to achieve a desired frame error rate for retransmission).

With respect to claim 9, Vanghi discloses in Fig. 3A, that in 1<sup>st</sup> transmission, the S/N threshold is adjusted based upon the received corrected or uncorrected frame (adjusting the transmission energy set point to achieve a desired frame error rate for transmission).

With respect to claim 10, Vanghi discloses (col. 6, lines 55-61) that at the end of first transmission four frames have been received correctly, hence, the effective message length is two frames. Further, the FER associated with a message length of two frames (retransmission frame error rate) is lower than the initial FER (transmission frame error rate) (transmission frame error rate is greater than retransmission frame error rate).

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With respect to claim 11, Vanghi discloses (col. 5, line 65 – col. 6, line 1) that the target frame error rate (desired total frame error rate) is used to adjust the set point (transmission frame error rate and retransmission frame error rate result in a desired total frame error rate).

With respect to claim 12, Vanghi discloses in Fig. 3A, that the FER(0) and FER(1) are defined based on the message (transmission frame error rate and retransmission frame error rate are predetermined values).

With respect to claim 13, Vanghi discloses in Fig. 3A, that the FER(0) and FER(1) are dynamically calculated (transmission frame error rate and retransmission frame error rate are dynamic values).

### ***Response to Arguments***

3. Applicant's arguments filed February 23, 2005 have been fully considered but they are not persuasive.

Applicant argues in page 4 that Vanghi fails to disclose determining a transmission energy set point. Wherein, the transmission energy set point as in Applicant's claims, which is applied at the transmitter and is distinct from the power control set point applied at the receiver as in Vanghi.

Examiner respectfully disagrees. Vanghi discloses (col. 6, lines 16-18) that once the target FER is computed, a target signal to noise (S/N) threshold or set point, in response to the FER may then be calculated. Vanghi further discloses (col. 4, lines 42-49) that the base station compares the computed SNR to the target SNR (calculated SNR) referred to herein as the power

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control set point. The base station transmits power control commands to the mobile station that signal the mobile station to either increase or decrease its transmit power level (determining a transmission energy set point) based on the comparison, and the mobile station adjusts its transmit power (transmission energy set point) accordingly. Herein, the transmission power of the mobile station (transmission energy set point) is determined according to the comparison and applied at the transmitter of the mobile station. Therefore, Vanghi discloses determining the transmission energy set point.

For the purpose of clarification, the power control set point is not considered as the transmission energy set point by the examiner. However, the power control set point relates to the transmission power of the mobile station since it indicates whether the transmission power of the mobile station should increase or decrease. Herein, only the transmission power of the mobile station is considered as the transmission energy set point and not the target S/N threshold.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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